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Non-Profit Law and Science for Global Resource Solutions

Phil Isenberg, Chair
Delta Vision Blue Ribbon Task Force
C/o California Bay-Delta Authority
650 Capitol Mall, 5th floor
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October 2, 2008

RE: Comments on Delta Vision's Fourth Draft Strategic Plan

Dear Chairman Isenberg and members of the Task Force:

The Natural Heritage Institute is please to provide comments to the fourth draft of the Delta Vision strategic plan. We commend the task force for their excellent work and have limited our comments to the discrete issues of governance and land use.

Governance

As a member of the steering committee of the BDCP and a participant in its Governance and Implementation Work group, NHI is particularly concerned that Delta Vision governance recommendations may work at cross purposes to governance proposals emerging out of the BDCP process.

While these complementary processes serve different purposes—Delta Vision to provide recommendations for legislative and executive agency reforms and BDCP to negotiate permit terms and conditions that will have legal force and effect under the state and federal endangered species act and the Ca NCCP[1] -- it would be highly desirable if they produce compatible structures for the governance of the delta as both a water supply system and vital ecosystem. While these comments reflect NHI's sense of the working assumptions and conceptual milestones that are emerging out of the BDCP Governance Workgroup, we do not

[1] In effect, these permits will allow the export agencies "take" listed species that would otherwise be illegal in exchange for undertaking conservation actions that would not otherwise be required.

purport to represent that group, much less the views of the BDCP Steering Committee which has yet to consider its outputs.

While there are many features of the Delta Visions staff's draft that NHI would strongly support, as noted below, we find it remarkably silent on the central governance challenge posed by the emerging consensus over an isolated delta conveyance facility (ICF) as the potential physical solution to the conflicting uses of this water system. The staff draft does not specifically address just how decisions will be made on the operations of the ICF, in conjunctions with the existing export pumps, to assure that the volume, rate, timing and manner of water extractions actually reduce, avoid and minimize conflicts with ecosystem processes. Indeed, the staff draft is not even specific as to what entity will own and operate the ICF. Clearly, these decisions will need to be made in real time in response to the movements of fishery resources in the system, hydrodynamics, and water supply requirements.

The ICF facility will increase the capacity and the flexibility to extract water out of the delta. As such, it has the potential for substantially increasing both the ecosystem risks and benefits. Thus, high confidence governance of its operations is indispensible to its acceptability and success. Day to day decisions regarding rates, timing and location of extractions will determine the failure of success. As the current mechanism for real time operational decisions has resulted in neither water supply reliability nor a stable ecosystem, the new governance arrangement must assure a substantial improvement in performance. Moreover, the current operations by law aim toward prevention of jeopardy. The objective of both Delta Viosion and the BDCP's is to achieve recovery. That implies an additional margin of safety beyond current operations.

Thus, some better mechanism than the current WOMP process is needed, in addition to (not instead of) the existing regulatory constraints. In NHI's view, two strategies to provide that margin are (1) to allocate a tradable share of the capacity of the ICF to an entity representing the Delta fisheries and ecosystem (see NHI concept paper on this NHI proposal), and (2) coupling the IDF to in-delta or south of delta storage so that water can be extracted during times when Delta flows are in excess of ecosystem requirements. A tradable capacity allocation also integrates well with—indeed might constitute—an adaptive management mechanism.

The working assumption that seems to be emerging in the BDCP Governance Workgroup is that the water supply agencies that use water out of the Delta will construct and operate the ICF at their own expense. As an implementation vehicle, these water supply agencies (all of which are state agencies) may form a joint powers authority (JPA) with the *ex officio* (non-voting) participation of the USBR and BDCP NGOs, to the extent authorized under current law. The JPA would operate the ICF in coordination with the Tracy and Banks pumping stations under a Coordinated Operating Agreement and enter into a contract with the USBR to either provide a share of the capacity of the ICF for the CVP or provide it wheeling services. Under this construct, the JPA would either function as, or substitute for, the Delta Water Utility under consideration by the Delta Blue Ribbon Panel. Coordination with and

conformance to the BDCP by the USBR will be achieved through the contract with the JPA and its dispute resolution procedures.

Under the BDCP, the permits that will be issued by the fishery agencies under the federal ESA and the California NCCP and CESA will include terms and conditions requiring the water export agencies (the permittees) to implement the conservation strategy that is being negotiated. The continuing viability of the permits will depend upon their success in achieving each element of this strategy. Therefore, these water agencies will want to insist upon retaining ultimate control over the BDCP implementation. This has a bearing upon the functions of the Delta Conservancy recommended in the staff draft.

We strongly concur in the recommendation to the legislature to create a new delta conservancy (in preference to an expansion of the scope of the Coastal Conservancy) to undertake the physical habitat restoration measures agreed in the BDCP. Such a specialized entity, with the requisite technical competence should orchestrate, enable and coordinate (rather than supplant) the suite of existing state, local, federal and non-governmental institutions that are already undertaking habitat improvements in the Delta as well as the any institutions that emerge out of BDCP to implement conservation measures. Most importantly, the conservancy should be available to hold title and be resourced to assume responsibility for land ownership obligations. A main advantage of a Delta Conservancy would be its ability to administer funding, expeditiously enter into the necessary contracts for acquisitions and services, and monitor results. A main disadvantage to the Delta Conservancy is that it may take several years for a new conservancy to develop the capacity necessary to expedite large scale restoration projects. If and when such a Delta Conservancy comes into existence, the JPA could enter into a revocable contract with it for the performance of the BDCP conservation strategy. In the event that the JPA's permits are placed at risk due to inadequate performance, however, the JPA would retain the power to rescind the contract and undertake the requisite conservation measures directly.

This structure, if it emerges, would render several of the new entities and processes envisioned by the staff draft superfluous. The CZMA "consistency determination" process would not be needed to assure conformance of the USBR with the BDCP as this would be achieved through the ICF capacity or wheeling arrangement between the JPA and USBR. This is surely preferable to the dispute resolution mechanism under the CZMA, which would lodge that function in a federal agency (the Department of Commerce), which, with the major exception of NMFS, has scant expertise on the California Bay Delta system. The Delta Water Utility would not be needed for Delta operations or San Luis storage—as these would be conducted by the JPA directly and through the Coordinated Operating Agreement—although it might still be useful for Oroville operations. The Delta Conservancy would be very desirable and useful, but not indispensible.

That leaves the California Delta and Ecosystem Water Council. This staff draft still does not make clear for what problem the Council is thought to be a solution, since all of the existing agencies and their authorities are to remain intact. It is not yet clear why we need yet another agency creating plans for the Delta. The problem in the Delta has never been a lack of plans—nor a failure of the management agencies to comply with this plethora of plans-- but

rather a lack of plans that work and the financial means to carry them out. We hardly need a 5-7 member panel to coordinate the plans and functions of these agencies. Lack of coordination is not what has brought the Delta to grief. It is lack of the physical and institutional means to reduce the conflict between water extractions and ecosystem processes. And the Council does not appear to be charged with or designed to achieve the function of deftly operating a new conveyance system for the benefit of the co-equal goals. With respect to that, one really good idea in the staff draft is the proposal to finance Delta improvements though two types of fees, one on the diversion of water under water rights permits from the Delta water system (including, presumably, the upstream diverters) and a second on deliveries of water through the ICF. But do we need a Council for this purpose? Why not charge the SWRCB, the body already set up administer the water rights system and permit conveyance facilities--to devise and allocate these fees.

In sum, it is hard to see what the Council adds other than another layer of bureaucracy. If it were limited to a (very top heavy) coordination organ, it might add some small value. But if it is to second guess the functions of the existing management and regulatory agencies, it will need to duplicate their technical capacity, which seems rather redundant. If conformance with the Delta Vision Strategic Plan is the worry, why not simply ask the legislature to mandate that compliance and make that subject to judicial review? The worry is that asking the legislature to take an unnecessarily large bite of the Delta Vision apple raises the threshold for its implementation and reduces the prospects of that occurring.

In addition creating a Delta Conservancy, the other institutional improvement that seems well justified is the expansion of authority of the Delta Protection Commission, which NHI strongly endorses for reasons discussed in the Land use section below.

Land use and Flood risk

The current draft of the strategic plan is weak on land-use and flood management issues and therefore inconsistent, both in substance and tone, with the Delta Vision articulated by the taskforce in January 2008 on issues of land use and flood risk reduction. The Delta Vision (January 29, 2008) included strong recommendations regarding land use and flood risk including:

- Discouraging inappropriate urbanization of the Delta is critical both to preserve the Delta's unique character and to ensure adequate public safety.

- State government should immediately begin acquiring title or easements to floodplains, establish flood bypasses where feasible, and discourage residential building in flood-prone areas.

- The Governor should immediately issue an Executive Order that provides guidance consistent with this vision on inappropriate land development in the Delta.

The Strategic Plan should reaffirm these recommendations in strong and clear language and make it clear in no uncertain terms that the following types of development are inappropriate, inconsistent with achieving the co-equal goals, incompatible with nurturing the Delta as place, and against the interests of California taxpayers – both present and future.

- Urban development on lands below sea level.
- Urban development on deep floodplains – floodplains that are six or more feet below the 100 year flood stage. Deep flooding would pose grave risk to human life and would result in catastrophic economic losses.
- Urban development or other infrastructure that would irreversibly constrain the potential to expand floodways and bypasses or create new flood bypasses necessary to convey floodwaters. Constraining floodways not only limits the states ability to reduce flood risk over time, but will also limit upstream reservoir operations and thereby constrain already limited water supplies (see strategy 5.2a).
- Urban development on the limited number of areas that are at or near sea level. These limited areas are the only places where tidal marsh can realistically be restored, and restoration of tidal marsh is essential for achieving the co-equal goal of floodplain restoration.
- Construction of state or municipal buildings such as schools, prisons, and offices on lands below sea level, deep floodplains, or adjacent to constrained floodways and flood bypasses.

Urban development of deep floodplains is inappropriate because it places lives and property at unacceptable levels of risk. All levees, whether they are designed to withstand 100, 200, 500 year floods, will eventually fail, and when levees fail on deep, urbanized floodplains, the results are catastrophic. As witnessed after Hurricane Katrina, homes in deep floodplains become inundated to their eaves or above, devastating property and threatening lives. A 200 year levee has a 13% chance of failing over the course of a thirty year mortgage if it performs and is maintained exactly as designed and hydrology or sea level don't change. In reality, however, levees are seldom maintained as intended and the preponderance of evidences suggests we should expect bigger floods and rising sea levels as climate changes in the next several decades.

Strategy 6.1 erroneously implies that urbanization of deep flood plains is appropriate if the levees are improved. Certainly, it is important to focus levee improvement investments on urbanized areas and triage levee investments to those areas where failure would cause the most harm. But, as explained below, new urban development of rural or semi-rural land inevitably increases risks to people, resources, and state interests in the Delta.

The task force should clearly explain that it is virtually impossible to simultaneously allow new development of deep floodplains, particularly greenfields, and reduce flood risks as

purported in goal number six. To make this clear, the text under goal six should be rephrased to more accurately and explicitly describe how to quantify flood risk and what actions are necessary to reduce flood risk overtime. Page 23, lines 16-24 explains that "there are two sides to the risk equation – the quality of the levees, and the value of the land uses and services they protect." A more accurate and quantitative equation of risk is the probability of failure multiplied by the consequences of failure.

(probability)(consequences) = risk

By definition a 100 year levee has a 1% (.01) chance of failing in a given year. If the consequences of the flood were destruction of a corn crop on 5,000 acres worth 2,000 per acre, the annualized risk could be calculated as follows:

(0.01)($2,000)(5,000) = **$100,000**

However, if the property is developed with five houses per acre on a deep flood plain, the risk rises exponentially even when the levees are enhanced to 200 year (0.005) level of protection, because the consequences of flooding are so much greater. For example if each house flooded to a depth of six feet, the economic loss could easily be $50,000 per household or $250,000 per acre. The annualized economic risk to property alone, not counting loss of life, emergency response, social and economic costs etc. could be monetized as follows:

(.005)($250,000)(5,000) = $**6,250,000**

Even with a 1,000 year levee (.001) or a 10,000 year levee (.0001), it is not possible to urbanize a deep floodplain and still reduce flood risk.

(.001)($250,000)(5,000) = $**6,250,000**
(.0001)($250,000)(5,000) = $**625,000**

The task force should consider recommending broad changes to the building code to limit risk to people and structures in deep floodplains. Many proponents of floodplain development erroneously argue that developing on floodplains is no more risky then developing in fire or earthquake zones and therefore should not be singled out for prohibition. The task force should clarify this misperception by pointing out that the building code is continually updated to reduce the risks associated with building in seismic and fire zones. Anyone applying for a building permit in a fire or seismic zone must now design and pay for more expensive code provisions such as increased reinforcements or fire resistant structures. In floodplains purportedly protected by FEMA certified levees, however, there are no special building provisions. The code allows unsuspecting residents to build at ground level with no provisions that would protect them or their property in the event of a flood. If the task force or the legislature does not have the political will or power to prevent urbanization of deep floodplains, perhaps they could simply amend the building code to require all structures be built above flood level in deep floodplains regardless of the level of levee protection.

Section 6.2, pages 44 -46, identifies several tracts of land where land-use oversight should be strengthened, but fails to give any rationale for why some tracts of land are identified and others are not. It is unclear what criteria the staff used to designate these tracts and it is equally unclear whether staff had an actual factual basis for applying the criteria. The strategic plan should be revised to recommend that all rural or semi-rural tracts below sea level (mean high tide) or within deep floodplains, should be subjected to increased oversight immediately.

Once again, thank you for your efforts on this important task for the future of California.

Sincerely

John Cain
Director, Restoration Programs

Gregory A. Thomas
President